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## **ABSTRACT**

Arrays of oligonucleotide spots, as well as methods for their production and use, are provided. The subject arrays have at least one pattern of probe oligonucleotide spots stably associated with the surface of a solid support. A plurality of different target nucleic acids are represented in the pattern, where each target nucleic acid may correspond to one probe oligonucleotide spot or a plurality of different probe oligonucleotide spots. In one type of preferred embodiment, all of the oligonucleotide spots correspond to the same type of target nucleic acid, i.e. all of the corresponding target nucleic acids are the same type of gene. Each probe oligonucleotide spot is made up of a plurality of unique oligonucleotides that are capable of hybridizing to different regions of the corresponding target nucleic acid. The subject arrays find use in hybridization assays, particularly in assays for the identification of differential gene expression patterns among cells.